

U.S.S.N. 10/729,034

REMARKS

Thorough examination and careful review of the application by the Examiner is noted and appreciated.

The gracious allowance of Claims 26-31 by the Examiner is further acknowledged and appreciated.

The indication by the Examiner that Claims 2,4,10 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims is still further acknowledged and appreciated.

The Applicants respectfully point out that Claim 10 has been rewritten into independent form in the previous amendment that was filed on February 6, 2006. As such, the Applicants respectfully submit that Claim 10 is now in an allowable condition. A reconsideration for allowance of Claim 10 is respectfully requested of the Examiner.

Dependent Claim 24 has been rewritten into independent form to become new Claim 32, which the Examiner has indicated would be allowable. A reconsideration for allowance of the newly added Claim 32 is respectfully requested of the Examiner.

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Claim Rejections under 35 USC § 102(e)

Claims 1,3, 5-7, 11,22,23 and 25 are rejected under 35 USC § 102(e) as being anticipated by Kiyotoshi's 258 publication. It is contended that Kiyotoshi discloses a stacked MIM capacitor structure that is similar to that claimed in independent Claim 1.

The rejection of Claims 1,3,5-7,11,22,23 and 25 under 35 USC § 102(e) based on Kiyotoshi is respectfully traversed.

Kiyotoshi discloses a stacked capacitor structure e.g., Figures 9 and 18 having a series of stacked layers in the form of electrodes/capacitor dielectric/electrode where the stacked layers are covered by a single insulating layer (128) (e.g., disposed in a single IMD layer). As shown in figure 9, two capacitors are formed by common electrical connection of a lower electrode 121a and an upper electrode 125c where **a middle electrode 123a acts as both an upper electrode for the lower first capacitor structure and a lower electrode for the upper capacitor structure.**

Thus, the two capacitor structure of Kiyotoshi differs from Applicant's disclosed and claimed invention in several ways.

Kiyotoshi does not disclose:

“a first MIM capacitor structure disposed in a first IMD layer comprising a first upper electrode and a first lower electrode; and,

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at least a second MIM capacitor structure arranged in stacked relationship in an overlying IMD layer comprising a second upper electrode and second lower electrode separate from said first upper and first lower electrode to form an MIM capacitor stack;

wherein, the first lower electrode is arranged in common electrical signal communication comprising electrically communicating vias with the second upper electrode and the first upper electrode arranged in common electrical signal communication with the second lower electrode to form said MIM capacitor stack in parallel electrical relationship.”

For example, Kiyotoshi does not disclose a first and second IMD layers as Applicants have disclosed and claimed and does not disclose first lower and upper electrodes in the first IMD layer and second lower and upper electrodes separate from the first lower and upper electrodes in the overlying IMD layer as Applicants have disclosed and claimed.

In Figure 18, Kiyotoshi discloses a similar structure but having 5 stacked electrode layers separated by four capacitor dielectric layers to form four capacitor structures. In this embodiment the electrode layers (202a, 204a, 206a, 208a, and 210a) are separated by capacitor dielectric layers (203, 205, 207, and 209) where the stacked layers are covered by a single IMD (insulating) layer (214) (e.g., disposed in a single IMD layer). Electrical contacts (vias) are provided extending through the single insulating layer to provide common electrical connection

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to alternating electrode layers. Electrodes 204a, 206a, and 208a act as both upper and lower electrodes in the stacked capacitor structure.

Thus, Kiyotoshi is clearly insufficient to anticipate Applicants disclosed and claimed invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

"The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson, v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The rejection of Claims 1,3,5-7,11,22,23 and 25 under 35 USC § 102(e) based on Kiyotoshi is respectfully traversed. A reconsideration for allowance of these claims is respectfully requested of the Examiner.

Based on the foregoing, Applicants respectfully submit that all the pending Claims, i.e. Claims 1-7,11,22,23-25, and the newly added Claim 32 are now in condition for allowance. Such favorable action by the Examiner together with the passage to issuance of the allowed Claims 26-31 is respectfully solicited from the Examiner.

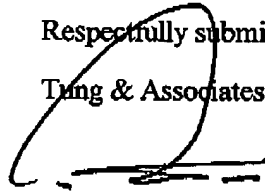
In the event that the present invention as claimed is not in condition for allowance for any reason, the Examiner is respectfully invited to call the Applicants' representative at his Bloomfield

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Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

Tung & Associates

A handwritten signature in black ink, appearing to read "Randy W. Tung", is written over a horizontal line. The signature is stylized with a large loop at the beginning.

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